



Name _____ Date _____

Practice: For use after Lesson 13.9, Algebra 2 with Trigonometry

Algebra 2
Unit 4: WS #16**Binomial Expansion**

1. Write rows 6–9 of Pascal's triangle.

Expand each binomial.

2. $(c + d)^4$ _____

3. $(r - s)^5$ _____

4. $(a + 2)^6$ _____

5. $(c + d)^7$ _____

6. $(3a + 2b)^3$ _____

7. $(2a - b)^6$ _____

8. $(a^3 + 3)^4$ _____

9. $(3a^3 - 4b)^3$ _____

10. $(r^{-3} + 5^{-2})^5$ _____

11. $\left(\frac{a}{2} + 2b\right)^5$ _____

12. $\left(a^{\frac{2}{3}} - b^{\frac{1}{3}}\right)^4$ _____

13. $(2 + i)^7$ _____

14. $(1 - i)^8$ _____

Applications

- 15.
- Geometry**
- Each edge of a cube is
- x
- cm in length. If each edge is increased by 5 cm, find the binomial expansion that represents the volume of the new cube.
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-
- _____

MIXED PRACTICE

Simplify.

16. $(2n + 5)^2$ _____

17. $-3d(d^2 - 6d + 7)$ _____

18. $a^2b(5a^2 - 2b^2)$ _____

19. $(r + s)^3$ _____